ABSTRACT

In the charging of a valve-regulated, lead-acid (VRLA) cell at a charge voltage which has a value that is slightly in excess of the value of the open-circuit voltage of the cell, wherein, during charging of the cell, there is produced at the positive and negative electrodes respectively oxygen gas and hydrogen gas in a predetermined amount, and wherein the negative electrode tends to discharge over a prolonged period of time during charging, the improvement comprising inhibiting the tendency of the negative electrode to discharge during charging by controlling the amount of oxygen gas in the cell by catalytically converting a portion of the oxygen gas and a portion of the predetermined amount of hydrogen gas to water, for example, by use of a catalyst positioned in the cell.